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ABSTRACT

During the Progressive Era (late 19th and early 20th Centuries), the theories of educational psychologists G. Stanley Hall and Edward L. Thorndike provided a basis for educational policy formation. It is hypothesized that their educational policies led to separate and unequal educational programs for women. Review of their writing indicates that they believed women by nature were unsuited to rigorous intellectual endeavor and should be educated for homemaking, childrearing, or for nurturing and noncompetitive professions. Hall (1844-1924) felt that educational reform could solve the problems of a rising divorce rate, declining birth rate, and the appearance of mannish women and feminized men. He believed that women were mysterious, fragile, and completely dominated by the biological necessities of reproduction. His ideal school would impose a curriculum pointing toward motherhood rather than mental development. Thorndike (1874-1949) advocated the theory of variability, which maintained that the intelligence of men varies five to ten percent more from the mean than that of women. He supported this view with data showing that most famous and influential people of the past had been men. He also viewed men as instinctive aggressors and women as instinctive nurses. Critical attacks on the theories went unheard because the two men were prominent, operated within the widely accepted framework of Social Darwinism and within the mainstream of Progressive educational reform. (Author/KC)

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G. Stanley Hall and Edward Thorndike on the Education of Women: Theory and Policy in the Progressive Era

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The emergence of educational equity for women as a major concern for educational policy makers has led to a new interest in the history of the education of women. This includes an interest in theories about how women should be educated, as well as an interest in policy, that is, in educational programs designed for women. This paper will explore certain aspects of theory and policy during the Progressive Era. Specifically, it will examine the theories of two prominent educational psychologists, G. Stanley Hall and Edward L. Thorndike, about the education of women and will explore the relationship of those theories to educational policy and to the social context of that policy.

The late nineteenth and early twentieth centuries were a period of rapid urbanization, of social ferment (including feminism) and of educational reform. These years saw a rapid expansion in secondary and post-secondary education for women, both in absolute numbers and in relation to men. By 1917, women constituted a clear majority of all high school students.[1] While only a small number of adventurous women attended college in the late nineteenth century, by 1916 more than a third of all college graduates were women. As early as 1907, women outnumbered men in some of the large coeducational universities and threatened to do so in others.[2]

Contrary to the hopes and expectations of feminists, expanded educational opportunities for women did not significantly narrow the economic and status gap between the sexes, either during the Progressive Era or in the decade or two that followed.[3] A small (but well publicized) minority of these women pursued intellectually rigorous educational programs leading to positions in prestigious, traditionally male fields. Far more frequently, however,

women entered one of the newly developed or newly expanded sex-segregated programs created for them during this period in both the coeducational high schools and universities. These were usually less rigorous programs, and they led to low paid, low prestige jobs in predominantly female occupations such as home economics, office and clerical work, nursing, social work, and elementary school teaching.[4]

Many factors contributed to the growth of this specialized women's education, but one of these factors was undoubtedly the work of academicians who gave new scholarly respectability to the far from new idea of separate and unequal education for women. G. Stanley Hall and Edward L. Thorndike were two of the most important of these academicians. Though differing from each other in style and methodology, both of these eminent educational psychologists arrived at a similar conclusion - that women were by nature unsuited to very rigorous intellectual endeavor and that generally women should be educated for homemaking and childrearing, or, as a less desirable alternative, for a limited number of nurturing and non-competitive "feminine" professions.

G. Stanley Hall and Edward L. Thorndike were among the most influential and academically productive educational psychologists of their day. Hall (1844-1924) served as president of Clark University from its founding in 1888 until 1920, organized and edited several academic journals, and published fourteen books and three hundred and fifty papers.[5] Thorndike (1874-1949) was Professor of Education at Columbia University's Teacher's College for forty years, during which he wrote over five hundred books, articles, and monographs.[6] Both men were active in professional associations, lectured widely, and published in popular as well as academic periodicals. Both men attracted students from all over the country, many of whom became leaders in educational research and teachers in schools of education.[7] Hall is remembered primarily as the father of the emperically based child study movement and Thorndike is remembered as the pioneer of quantitative educational research

methodology. This study, however, will focus upon the aspects of each man's work that were relevant to the education of women.

Hall was a romantic, a deeply religious, almost mystical man whose academic interests included Darwinism, anthropology, and the psychological theories of Sigmund Freud and Carl Gustav Jung.[8] Hall idealized women as the keepers of the hearth, the guardians of civilization, and, through their roles as mothers, the key to the future of humanity. Deeply distressed by the evils, real or imaginary, of a rising divorce rate, a declining birth rate, and the appearance of "mannish" women and "feminized" men, Hall sought the solution to these problems through educational reform.

Along with other Social Darwinists of his time, Hall believed that humanity, like the lower animals, evolved upward from simple, undifferentiated forms of life to complex, specialized forms. Individuals supposedly repeated this evolution to their own lifetimes, moving from infantile reliance upon emotion and intuition to "the well developed sense of reason and intellect that were the hallmarks of the last stages of evolution..."[9] Hall believed that women were lower on the evolutionary ladder than men, "less specialized and more generic, richer in intuition, and psychically nearer the child." These qualities made them naturally suited to be the companions and caretakers of young children.[10] Like children, women should be protected and cherished, because, like children, women represented the future of the race. Despite his claims to objectivity in his research on child development, Hall waxed poetic rather than scientific when he wrote about women. Since the race was, to Hall, more important than the individual, motherhood was the most important role for any woman; indeed, it was the only legitimate role, and Hall was certain that no woman who rejected this role could find happiness in any other.[11] Again using the Darwinian frame of reference, Hall saw men as agents of progress and variation and women as the conservators of civilization. This differentiation of function by sex was essential to evolutionary progress.

Hall saw attempts to lessen such differentiations by giving women the same education as men as retrogressive and antievolutionary.[12]

Hall's understanding of Freud supported his conviction that women were mysterious, psychically fragile, totally different from men, and completely dominated by the biological necessities of reproduction. Like Freud, Hall believed that sex was the most basic and all pervasive determinant of human behavior from infancy through adulthood; and from this he deduced that gender difference necessitated differences in every other aspect of life.[13] His studies of the interests and behaviors of children supported this view. He found, for example, that girls at all ages preferred cats as pets while boys preferred dogs, and that girls were more easily influenced and more eager to please than boys.[14] Evidence suggesting similarities between the sexes he dismissed as pathology. When he discovered that both girls and boys chose male figures as their ideals, he did not conclude that girls shared many of the ambitions of boys. Rather, he interpreted the finding as evidence that women needed more direction, through education, toward the appropriate womanly ideals.

Hall's writings made many explicit suggestions for the education of women. He opposed coeducation, especially after puberty, because "it is utterly impossible to hold girls to the same standards of conduct, regularity, severe moral accountability, and strenuous mental work that boys need."[16] He believed that ideally girls from the age of twelve into their twenties should be educated separately from boys, preferably in the country where they could attune their lives to the harmony and regularity of nature. Their health should be carefully guarded, in the interest of future motherhood, and they should receive sex instruction with "a certain mystic and religious tone," not from a physician or teacher, but from a woman "whose soul and body are full of wifehood and motherhood."[17]

In his book, Adolescence, Hall quoted with evident approval many studies,

most of them from the nineteenth century, suggesting that scholarship was injurious to the health of menstruating girls. He also cited with great concern, statistics indicating that women who attended college were less likely to marry than women who did not and that, if they did marry, were less likely to have children. He concluded that current practices in the education of women led to poor health and to sterility, a disaster not only for the individual, but more important, for the race.

His ideal school would correct these mistakes. It would require girls to cultivate "idleness and reverie" during their menstrual periods and would impose a curriculum pointing toward motherhood rather than mental development. The proper curriculum for girls should stress art, religion, gardening, child psychology, poetry, and mythology and should teach domestic arts "in some ideal home building by a kind of laboratory method."[18] Classical languages, mathematics, philosophy, political history, chemistry, and physics should be eliminated or taught only at the most elementary levels. In the interest of motherhood and the future of the race, women's education should:

> "keep the purely mental back and... bring the intuitions to the front...appeals to tact and taste should be incessant...Bookishness is probably a bad sign in a girl... prodigies of scholarship are always morbid. The rule should be to keep nothing that is not to become practical; to open no brain tracts which are not to be highways for the daily traffic of thoughts and conduct; not to overburden the soul with the impediments of libraries and records of what is afar off..." 19

In coeducational institutions, as well, Hall recommended special, non-intellectual education for girls. He opposed student government in co-educational high schools because he feared that it would encourage women to become suffragists and feminists, rather than wives and mothers! The only career Hall approved of for women was the temporary one of kindergarten teaching. (At all other levels of education he favored men as teachers, for both girls and boys.) He viewed kindergartens not only as institutions benefitting children, but also as training centers for young women, "maiden

probationaries for motherhood...to make them true mothers in heart and soul because lovers and servers of children."[20] Training for kindergarten teaching should take place in model schools established and operated by male professors. It should be practical rather than theoretical because "women are more intuitive as well as more imitative than men and more in danger of being either spoiled or introverted by too much self-consciousness about their work."[21]

In sum, Hall used selected nineteenth and early twentieth century studies of women's health and fertility and psychological traits and interests to support his own theory of the nature of woman. This theory sacrificed women's individuality and mental activity on the alter of generic domesticity and motherhood. Fearing that women were being seduced by modern, male oriented education into the abandonment of their natural destiny, Hall advocated a special, non-intellectual women's education to bring them back to an acceptance of that destiny - in their own best interest, but also in the interest of men who, he feared, were being feminized by the presence of too many women in the schools, as students and as teachers.

Born three decades later than Hall, Thorndike appears more sophistocated to the contemporary reader. Eschewing Hall's flowery prose, Thorndike punctuated his writing with charts, graphs, and tables, quantitative scientific scaffolding that gave his work added credibility. Like Hall, Thorndike was influenced by Social Darwinism. Like Hall, Thorndike hoped to use education as a mechanism for social change. Unlike Hall, however, Thorndike did not make war on moral decline. Rather, he hoped to maximize human progress by championing the cause of educational efficiency.

On the surface, Thorndike's views on the nature and education of women appear more liberal than those of Hall. Like Hall, he was interested in identifying psychological differences between the sexes, but unlike Hall, he recognized the difficulty in distinguishing acquired differences from innate

ones.[22] Thorndike did not believe that the fact that most women were wives and mothers precluded some women from being editors or engineers. Nor did he accept the common view that, in the interests of biological specialization, men should always produce wealth and women should always consume it. Such a division of labor could be inefficient. "Shall a girl who can earn $2.00 an hour as a dentist spend two hours a day to save twenty cents a week in coal and potatoes?" he asked.[23]

Thorndike did not share Hall's fear that intellectual work would destroy the health of menstruating girls and ruin their potential for motherhood. Nor did he share Hall's view of the mental inferiority of women as a group. Rather, he cited the experience of the past generation as proof that on the average women were as competent as men in school work at the elementary, secondary, and collegiate level.[24] Consequently he rejected Hall's plea for sex segregated education as "an absurdity." Documenting his case with school grades and with the scores of the newly developed intelligence tests, he argued that there was no significant difference between the average intellegence and academic performances of the sexes. In the interest of educational efficiency, children should be grouped by ability, not sex.[25]

Still, there were several important elements in Thorndike's thought that were restrictive in their implications for the education of women. One of the most serious was his advocacy of the theory of variability, a theory shared by many of his colleagues. Thorndike believed that men's and women's abilities averaged about the same, but he also believed that the intelligence of men varied five to ten per cent more from the mean than that of women. (Admitting a lack of quantitative evidence, he supported this view with data showing that most of the famous and influential people of the past had been men!) If in fact men were slightly more variable in ability than women,

> "this would mean that of the hundred most gifted individuals in the country, not two would be women...Thus though women should capture the teaching profession, they would hardly fill its most eminent

> positions...even should all women vote, they would play a small role in the senate." 26

Women should be trained for professions such as nursing, teaching, medicine, and architecture, "where the average level is essential," but not for professions such as administration, statesmanship, or his own field, scientific research, where "a few very gifted individuals are what society requires."[27] In the interests of efficiency, educational resources should be concentrated where they would do the most good - on the exceptional few rather than on the average many; on men, rather than on women.

A second aspect of Thorndike's thought that was detrimental to equal education for girls was his emphasis upon practical education, especially at the high school level. Having established through his own research that skills learned in one academic discipline were not necessarily transferable to any other area, Thorndike recommended that high schools design their curriculum around "problems that are most like those of life." Since girls would face the problems of homemaking in life, they should study home economics in high school.[29] He favored home economics for girls but not for boys, despite his belief that both had the same mental abilities on the average, because he believed that all branches of learning were equivalent in value and because "schooling must be considered in relation to community arrangements."[30]

Finally, Thorndike shared with Hall the Social Darwinist view that heredity was more important than environment in shaping human behavior. He believed that women differed from men in their inherited traits, or instincts, as well as in their intellectual variability and their social functions. Here Thorndike brushed aside his own reservations about the difficulty of distinguishing inherited from acquired characteristics, as well as his usual quantitative, empirical method of research. Citing no proof except "common knowledge" and "testimony of literature", Thorndike identified two sex linked instincts - the fighting instinct for men and the nursing instinct for women. The male

fighting instinct included "resentment at mastery, the zeal to surpass, and the general joy at activity in mental as well as physical matters," and to it he attributed "a very large amount of the world's intellectual activity." Women's nursing instinct included "an original impulse to relieve, comfort and console,"[31] as well as a preference for "submissive loyalty" rather than mastery of others.[32] Superior intellectual achievement was for men; nurturing behavior and occupations were for women.

Thus, his conviction that education should be practical and efficient in use of resources, as well as his acceptance of traditional views of women's roles, led Thorndike to conclusions not unlike those of Hall:

> "Not only the probability and the desirability of marriage and the training of children as an essential feature of woman's career, but also the restriction of women to the mediocre grades of ability and achievement should be reckoned with by our educational system," he wrote. 33

Critics, many of whom were academic and professional women, challenged the ideas of Hall and Thorndike. Willystine Goodsell, an assistant professor at Teacher's College, assembled an impressive array of medical and empirical studies demonstrating that rigorous work and study were not injurious to the health of young women, and that it was simplistic and fallacious to blame declining marriage and birth rates on college education for women.[34] Leta Hollingworth, also a faculty member at Teacher's College, assembled evidence refuting Thorndike's theory of variability. She warned that sex differences in achievement could not be considered innate until women had had the same training and experiences as men.[35] Elizabeth Woodbridge added the psychological factor of differential expectations; that women's achievement was limited partly because no one expected them to achieve.[36]

Critics attacked Hall and Thorndike on a practical as well as a theoretical level. Experts in vocational education for women argued that attempts to channel all women into homemaking courses were not realistic. They pointed

out that a quarter of all women were in the work force, many on a long term rather than temporary basis, because they needed to earn their living. The urban high school woman in particular needed training in saleable vocational skills, not in home economics, to enable her to compete on equal terms with men in the growing industrial labor market.[37]

Why were the views of Hall and Thorndike (and others like them, who supported the growth of separate and unequal education for women) incorporated into mainstream educational policy, while the criticisms of their opponents were given little attention? First of all, because of the prominence and prestige of their authors, Hall and Thorndike's views received much wider circulation in journals, lectures, conferences, and textbooks and through their students than the views of their opponents. Students, parents, and educational policy makers, like the general population, were more likely to come into contact with the ideas of Hall and Thorndike than with those of Willystine Goodsell, and more likely to take them seriously. Moreover, the Progressive Era was the age of the "experts;" and Hall and Thorndike not only qualified as "experts," but were buttressed in their views on the education of women by an array of other educational experts, such as Charles Eliot, president of Harvard and William Harper, president of the University of Chicago.[38]

Second, the ideas of Hall and Thorndike were easily digested because both men operated within the familiar, widely accepted framework of Social Darwinism. Both men made constant use of the catchwords of the day, words like "evolution," "variability," "specialization," "efficiency," and "progress." Third, the ideas of Hall and Thorndike were readily received by many educational administrators because they were well within the mainstream of what has come to be known as Progressive educational reform. "Progressive" educational reform was a broad movement including a wide spectrum of personalities and programs. Many of its advocates, including John Dewey, did not agree with Hall and Thorndike's narrow

views on the education of women. Still, Dewey and other reformers of the day had familiarized educators and laymen with the view that education should concern itself with real life situations and social needs and that children should learn by doing - ideas that seemed to support the introduction of practical, socially useful, laboratory style home economics and commercial courses for women.

That education should be designed to meet the needs of the individual child was a commonly accepted ideal, but it could scarcely be put into practice at a time when urban school populations were growing faster than classrooms could be built. Grouping the children into special programs on the basis of ethnicity, class, ability, or, in this case, sex seemed a convenient, efficient, and economically feasible compromise between the undifferentiated common school curriculum of the nineteenth century and the individualized instruction recommended by reformers in the twentieth.

Most important of all, the views of Hall and Thorndike were compatible with the needs and interests of many elements of the populations during the Progressive Era. College and professional men found Hall and Thorndike's views to their liking because the segregation of women into separate and less rigorous programs would prevent "feminization" of traditionally male domains and would neutralize women as competitors both in the classroom and the marketplace.[39] While Hall and Thorndike advocated nursing, social work, and elementary teaching programs as appropriate to the nurturing nature of women, hospital and school administrators welcomed these programs as a solution to their growing need for competent but inexpensive workers. Businessmen supported the growing number of secretarial and commercial courses for women for similar reasons.

Home economics as the ideal study for all women received support from several sources. Nativists saw home economics instruction as a way of Americanizing immigrant women and thereby reducing the risk of disease, delinquency,

and radicalism in the ethnic ghettos.[40] Many clergymen, social workers and socially conservative laymen and eugenicists hoped that educating middle class women for homemaking would reverse the declining birthrate, halt the rising divorce rate, and raise what they percieved as the declining quality of family live - and consequently the declining moral tone of the nation. Members of this group were dismayed by the increasing entry of women into the labor force and into higher education at the turn of the century - a trend they blamed for social changes that were, in fact, a result of rapid urbanization and industrialization.[41]

Thus, while education for women continued to expand during the Progressive Era and the decades that followed, high school and college women were increasingly found in less demanding, low status specialized "feminine" fields such as home economics, (backed by government financing after the passing of the Smith Hughes Act), nursing, social work, clerical areas, and teaching. Industrial education for workingclass women grew slowly,[42] and the entrance of middle and upper class women into traditionally male professions remained stable or, in some cases, actually declined. Though the total number of women in the professions increased in the 1920's, they remained clustered in "female" occupations. In New York, for example, there were 63,637 teachers and 21,915 nurses but only 60 Certified Public Accountants, 11 engineers, and 7 inventors. There were fewer women in medical school in the late 1920's than there had been at the turn of the century.[43] Even the graduates of the elite women's colleges, traditionally a source of "career women," turned increasingly to stereotypical female occupations or to full time domesticity.[44] Since American occupations were becoming increasingly professionalized in the early twentieth century, economic opportunity was becoming increasingly tied to educational credentials. Thus the growth of separate and unequal educational programs for women increasingly hindered women's access to higher status employment.

Hall and Thorndike's restrictive ideas on the education of women did not find their way into educational policy because they were scientifically sound or unopposed, but rather because they were compatible with and supportive of other educational, social, and political agendas of the time. The increasing numbers of women entering the work force and entering higher education at the turn of the century, coupled with the expansion of feminism (including, but not limited to the suffrage movement) aroused anxiety among many sectors of the population. This anxiety was aggravated by the rapidity of other social and economic changes. The educational theories as well as the educational policies described here were in large part a response to those anxieties. The history of women's education during the Progressive Era suggests that educational expansion does not necessarily mean an increase in status for the population affected and that educational theory and policy must be examined in relation to the fears as well as the hopes engendered by rapid social change.

FOOTNOTES

1. Statistics of Public High Schools 1917-1918, published by Statistical Division of the Bureau of Education, 1920, as cited in Willystine Goodsell, The Education of Women: Its Social Background and Its Problems, The MacMillan Company, New York, 1923, 26.

2. Women outnumbered men at the Universities of California, Iowa, Kansas, Minnesota, Nebraska, Washington and Texas. Educational Review, Dec. 1907, 512 as cited in Thomas Woody, A History of Women's Education in the United States, Vol. II, The Science Press, New York, 1929, 290.

3. William H. Chafe, The American Woman: Her Changing Social, Economic, and Political Roles, 1920-1970, Oxford University Press, New York, 1972 ch. 2-4. See also Jill K. Conway, "Perspectives in the History of Women's Education in the United States," History of Education Quarterly, 14 (Spring 1974) 8-10.

4. Ibid. ch. 4. See also Woody, op. cit., ch. II and ch. VII.

5. Merle Curti, Social Ideas of American Educators, Littlefield, Adams and Company, Totowa, New Jersey, 1974, 396.

6. Geraldine M. Joncich, editor, Introduction to Selected Writings of Edward L. Thorndike, Teachers College, Columbia University, 1962, 1.

7. Hall trained Arnold Gesell and Lewis Terman. Dorothy Ross, G. Stanley Hall: the Psychologist as Prophet, University of Chicago Press, Chicago, 1972, 422; Thorndike trained George Strayer and Ellwood Cubberly in statistics, Joncich, op. cit.

8. Hall invited both Freud and Jung to address a symposium at Clark University in 1910. Reported by William Burnham in the Journal of Educational Psychology, Vol. I, No. 1, 1910, 35-36.

9. G. Stanley Hall, Adolescence; Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education. Vol. II, D. Appleton and Company, 1905, reprinted by Arno Press, 1969, 450.

10. Ibid. 497.

11. "as Augustine said, the soul is made for God and is not happy till it finds rest in him, so woman's body and soul are made for maternity and she can never find true repose for either without it... Even if she does not realize it, her whole nature demands first of all children to love...and perhaps a little less, a man whom she heartily respects and trusts to strengthen and perhaps protect her in discharging this function." Ibid. 610.

12. Ibid. 617.

13. Ibid. 561-562.

14. Ibid. 225.

15. Ibid. 619.

16. Ibid. 623.

17. Ibid. 640.

18. Ibid. 644.

19. Ibid. 640.

20. G. Stanley Hall, Educational Problems I, D. Appleton and Company, New York, 1911, 6-7.

21. Ibid. 7.

22. Edward L. Thorndike, Educational Psychology, Vol. III, "Mental Work and Fatigue and Individual Differences and Their Causes," Teachers College, Columbia University, New York, 1914, 184.

23. Edward L. Thorndike, "Sex in Education," Bookman 23: April 1906, 214.

24. Thorndike, Educational Psychology, op. cit. 184.

25. Thorndike, "Sex in Education," op. cit. 212.

26. Ibid. 213.

27. Ibid. 213.

28. Thorndike, "Intelligence and Its Uses," Harpers Magazine (1920) 140, 222.

29. Thorndike, "The Opportunity of the High Schools," Bookman 24, October 1906, 184.

30. Joncich, op. cit. p. 99. (Quoted from Thorndike's Adult Learning).

31. Thorndike, "Sex in Education," op. cit. 212.

32. Thorndike, "The Psychology of Labor," Harpers Magazine 144, May, 1922, 801.

33. Thorndike, "Sex in Education," op. cit. 213.

34. Goodsell, op. cit. 34-61, 84-98.

35. Ibid. 72-76.

36. Elizabeth Woodbridge, "The Unknown Quantity in the Woman Problem," Atlantic Monthly CXIII, April 1914, 512-513.

37. Mrs. Raymone Robins, "Industrial Education for Women," Proceedings of the National Society for the Promotion of Industrial Education, Bulletin No. 10, 78 and Florence Marshall, "How to Conduct a Trade School for Girls," Proceedings of the National Society for the Promotion of Industrial Education, Bulletin 9, 100. Cited in Goodsell, op. cit. 209.213.

38. Roberts Frankfort, Collegiate Women: Domesticity and Career in Turn of the Century America, New York University Press, New York, 1977, 96-99.

39. Frankfort, op. cit. xvi-xvii, 23.

40. Maxine S. Seller, "The Education of the Immigrant Woman," Journal of Urban History Vol. 4, No. 3, (May, 1978) 309-312.

41. Woody, op. cit. 39-51.

42. According to the 1910 Report of the Commissioner of Education, only 26 out of 193 trade schools existing at that time were for girls. Even those that admitted girls often relegated them to classes in cooking and sewing that had nothing to do with the skill they had enrolled to learn. (The Smith Hughes Act of 1917, which gave federal money to support vocational programs, supported mainly home economics rather than industrial arts for girls) Goodsell, op. cit. 174-181, 209. See also Woody, op. cit. 52-97.

43. Chafee, op. cit., 90.

44. Frankfort, op. cit. passim.